Appln No. 09/112,786
Amdt. Dated March 11, 2004
Response to Office action of September 11, 2003   5

REMARKS/ARGUMENTS

A minor amendment has been made to claim 1 to clarify that the processors are configured to exchange data. As submitted previously, this feature was implicit in the phrase "arranged around a crossbar switch". Also, this feature is clearly defined in claim 11 and so Examine has already considered it. Accordingly, we submit that it adds no new matter, raises no new issues for consideration and further emphasises the allowability of the claim.

Applicant has reviewed Gove again, but is still strenuously traverses Examiner's conclusions.

Given the number of responses already lodged in relation to this application, I believe it will be best to concentrate on a single aspect of the present claimed in invention to show, in detail, why Examiner's conclusions about the arrangement of circuitry it discloses are wrong. Please note that nothing in this reply should be construed as acknowledging that I agree with any other arguments by Examiner in the present Office Action.

At page 3 of the Office Action, Examiner suggest that Gove clearly discloses that the crossbar switch 20 is used to allow communications between the processors, as is defined in the present claims. With respect, this conclusion is demonstrably incorrect.

To begin with, the section referred to by Examiner in this portion of the Office Action does not, as Examiner suggests, say anything about processor to processor communications. The full text of the relevant part of Gove states:

> "Crossbar switch 20 is shown distributed, and in this form tends to mitigate communication bottlenecks so that communications can flow easily between the various parts of the system"

This sentence in no way states that the information is moved between processors by the crossbar switch. It simply states that communications flow "between the various parts of the system". Clearly this does not disclosed what is claimed.

The paragraph continues:

> "The crossbar switch is integrated on a single chip with the processors and with the memory thereby further enhancing communications among the system elements."

Again, there is absolutely no mention of the claimed feature in which the crossbar switch connects the processors to allow exchange of data.

The rest of Gove provides further support for the conclusion that there is no direct routing of data between the processors via the crossbar switch.

Figure 2, referred to by Examiner, shows the crossbar switch 20 as two bus-width arrows. The first extends between internal memory 10 (which, from Figure 1, comprises memory modules M0 to Mj) and the transfer processor 11. The other extends between the internal memory 10 and the processors 100-103. These is the only connections formed via the crossbar switch. The processors are illustrated as being kept in synch by the MIMD Communication/Synchronization Network 40 (Figure 1, and indicated as "synch" in Figure

2), but there is quite clearly no disclosure of data being passed from processor to processor via the crossbar switch.

Figure 4 shows yet another diagram of the circuitry, this time showing the connections formed by the crossbar switch. Again, this diagram clearly shows selective connectability of a processor to one or more memory modules in a group. It is similarly clear that the processors cannot be configured to exchange data via this arrangement.

Figures 5 to 9 show various prior art parallel processing arrangements operating in either shared or distributed mode, each of which has its disadvantages. The present invention is then shown in Figure 10 as being configurable to take either shared or distributed form as required. It will be noted, however, that not one of the data flows in any of these diagrams shows data being passed between processors; rather, all data flows are explicitly between processors and memory.

For all these reasons, it is respectfully submitted that the present invention as claimed is patentable over the cited art.

Further consideration of the application is respectfully requested. In the event the Examiner believes that a telephone interview (the Applicant is in Sydney, Australia) would help advance prosecution, please let me know and we will arrange a mutually agreeable time to call the USPTO.

Very respectfully,

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